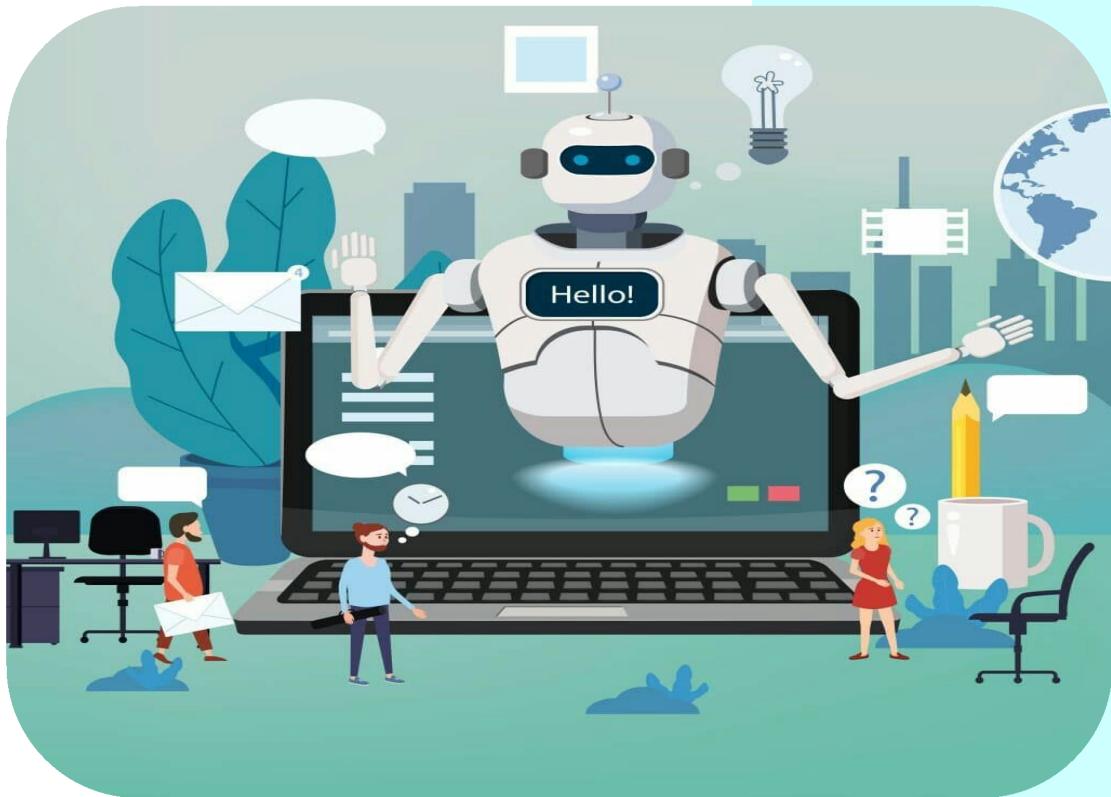




Lesson Preparation book

ICT

6th. Prim – Second Term – 2024



Prepared and Designed/Yasmin Shoaeب جروب فريق أصدقاء الكمبيوتر المتخصص



Teacher's Biography

Name:

School:

The educational administration:

Qualification:

Teaching Subject:

Comprehensive School:

The school to which he is delegated:

Date of appointment:

The job is on the staff:

Teacher Code:

Mobile Number:

Teacher

Supervisor

School Principal

.....

.....

.....



Daily Class Schedule

Session: today	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Session: today	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Teacher

Supervisor

School Principal



The General objectives of computer and information technology

- **Providing** students with the appropriate amount of scientific and basic knowledge and skills related to how to solve problems .
- **Develop** basic scientific thinking skills.
- **Gain**the ability to use technical means , multimedia, and networks and employ them as tools to serve and integrate with different fields of study
- **Training** students to work within a team by practicing computer techniques.
- **Creates** Websites and determines their characteristics.
- **Developing** students' awareness of the importance of technological awareness and cultural communication.
- **Acquire** concepts related to the principles of web page design .
- **appreciation** of the role played by science and scientists.
- **recognize** On the suite of Microsoft Office programs..
- **Raising** students' awareness of the concept of information ethics and the rules of safe use of the Internet.
- **Collects** data and presents it in an interesting way.
- **Specifies** how ICT tools can help make his school more inclusive
- **Discuss** different scenarios/contexts and choose the appropriate computer and network devices
- **Discusses** how future technology can improve the education sector and daily life
- **Discuss** Aspects of the experience of users of advanced technology and artificial intelligence.
- **Shares** his ideas for developing the latest assistive technology product.
- **Provides** suggestions on how mobile devices can support the learning process
- **Innovates** an idea to create a website that promotes An advanced product in its category Assistive technology

Teacher

Supervisor

School Principal



The Specific objectives of computer and information technology

- Give examples of technology tools used to create educational computer games
- Train Artificial Intelligence (AI) to distinguish between images
- Create ethical AI responses
- Identify artificial intelligence (AI) tools
- Describe different ways artificial intelligence is used
- Discuss the importance of ethics while using artificial intelligence
- Explain what e-commerce is
- Discuss the basic features of stocks and bonds.
- Explain how to use technological research tools to make purchasing decisions.
- Explain what educational service providers are
- Discuss how to properly communicate with educational service providers
- Communicate with an educational service provider
- Explain the value of real-time communication.
- Discuss the tools available in a video conference
- Make a presentation via a video conference
- Explain the value of real-time communication.
- Discuss the tools available in a video conference
- Make a presentation via a video conference
- Explain what image manipulation is and what it is used for
- Identify some uses of photo editing tools
- Discuss the advantages of using photo editing tools to show ideas.
- Knows some important terms related to the axis
- Comparing Between programming languages
- Innovates An idea to create an application for a mobile device that displays the historical sites of Egypt

Teacher

Supervisor

School Principal



Distribution of the content of computer, Information Technology and communication

For the 6TH primary grade - second term for year -2024

week	lesson	Content
The third axis: digital citizenship		
10 – 2 – 2024	first	Explorer in Action
	second	Ethics of using artificial intelligence
17 – 2 – 2024	third	E-commerce
	fourth	Communicating with educational service providers
24 – 2 – 2024	Fifth	Computational communication tools
	Sixth	Programming and digital problems and how to solve them
2 – 3 – 2024	Seventh	Using photo editing tools
9 – 3 – 2024	A review on the third axis	
Fourth axis: software projects		
16 – 3 – 2024	first	Active explorer
	second	Operating systems and software
23 – 3 – 2024	third	Writing and sharing reports
	fourth	Create presentations
30 – 3 – 2024	Fifth	Create a database
6 – 4 – 2024	sixth	Creating digital projects
13 – 4 – 2024	A review on the fourth axis	
20 – 4 – 2024	Second semester project	
27 – 4 – 2024		
4 – 5 – 2024	The start of the second semester exams	

Teacher

.....

Supervisor

.....

School Principal

.....

Scope and sequence

THEME 3 Digital Citizenship



LESSON	TOPICS	SKILLS INTEGRATION		
		Life skills	Values	Issues and challenges
LESSON ١ Explorer in Action	<ul style="list-style-type: none"> How to make technology more ethical Practice creating ethical AI responses 	Learning to know: evaluating; critical thinking	Work values: creativity Personal values: inclusion	Globalization issues: technological awareness; digital citizenship
LESSON ٢ Ethics of using artificial intelligence	<ul style="list-style-type: none"> Explore the different types of AI in everyday use Discuss the ethics that should be practised by AI designers 	Learning to be: respect for diversity :Learning to live self-management	Science values: objectivity; appreciation of science and scholars	Globalization issues: digital citizenship; technological awareness
LESSON ٣ E-commerce	<ul style="list-style-type: none"> What e-commerce is The basic features of bonds and stocks 	:Learning to work decision making	:Personal values independence	Globalization issues: digital citizenship; technological awareness
LESSON ٤ Communicating with educational service providers	<ul style="list-style-type: none"> What educational service providers are How to communicate with educational service providers 	Learning to live: self-management; Learning to work: decision making	Science values: objectivity; Work values: co-operation; perseverance	Globalization issues: technological awareness; civilizational communication
LESSON ٥ Computational communication tools	<ul style="list-style-type: none"> The value of real-time communication Write and share a report using video conferencing 	:Learning to live communication	Science values: objectivity; Work values: co-operation; perseverance	Globalization issues: technological awareness; civilizational communication
LESSON ٦ Programming and digital problems and how to solve them	<ul style="list-style-type: none"> The purpose of different programming languages Common digital problems and solutions 	:Learning to work ; decision making Learning to know: problem solving; Learning to live: communication	:Work values perseverance	:Globalization issues technological awareness
LESSON ٧ Using photo editing tools	<ul style="list-style-type: none"> What image manipulation is and what it is used for The advantages of using photo editing tools to show ideas 	Learning to know: problem solving; Learning to live: communication	Science values: appreciation of science and scholars	Globalization issues: digital citizenship; technological awareness



THEME 4 Software Projects

LESSON	TOPICS	SKILLS INTEGRATION		
		Life skills	Values	Issues and challenges
LESSON ١ Explorer in Action	<ul style="list-style-type: none">How ICT tools can improve people's livesDesign an ICT tool for the transportation needs of a community	Learning to know: problem solving; financial literacy	Work values: entrepreneurship; Personal values: independence	Globalization issues: financial technology awareness
LESSON ٢ Operating systems and software	<ul style="list-style-type: none">The importance of computer operating systemsHow to change the settings of an operating system	Learning to know: problem solving; Learning to do: co-operation	Work values perseverance	Globalization issues technological awareness
LESSON ٣ Writing and sharing reports	<ul style="list-style-type: none">Using Microsoft Word to write a report about a projectUsing messaging services to communicate ideas	Learning to work decision making	Work values co-operation; Practical values: objectivity	Globalization issues: technological awareness; civilizational communication; digital citizenship
LESSON ٤ Creating a presentation	<ul style="list-style-type: none">Using creation tools to express opinions and ideasHow to use different creation tools on Microsoft PowerPoint	Learning to live: self-management; Learning to work: decision making	Work values co-operation; Personal values: independence	Globalization issues: digital citizenship; technological awareness
LESSON ٥ Creating a database	<ul style="list-style-type: none">How to use common Microsoft Excel toolsCreate a database	Learning to work: decision making; Learning to live: self-management	Work values co-operation; Personal values: independence	Globalization issues technological awareness
LESSON ٦ Creating digital projects	<ul style="list-style-type: none">What the purpose of a flowchart isCreate a digital project using PowerPoint	Learning to work: decision making; Learning to live: self-management	Personal values: independence; Work values co-operation	Globalization issues: technological awareness; civilizational communication

Date			
Session			
Class			

Theme 3: Digital Citizenship
Lesson 1: EXPLORER IN ACTION
"Ariam Mogos"

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Flipped classroom - Dialogue and discussion - Cooperative learning
<ul style="list-style-type: none"> - Give examples of technology tools used to create educational computer games - Train Artificial Intelligence (AI) to distinguish between images - Create ethical AI responses 	Teaching aids:-
	Electronic board - Student's book - video by Ariam Mogos

Introduction / Do you enjoy learning with games?



Lesson presentation

□ Ms. Ariam Mogos

- Researcher, educational technology who work on games, and National Geographic explorer
- In ٢٠١٥, Ms. Mogos designed a program to assist young refugees and host communities in Kenya To collaborate in creative ways



First, the groups created a paper prototype of the game and designed it in **Then** use an app called **Scratch**.

***Scratch**: A free programming website for children

- Ms. Mogos designed activities centered around the impact of artificial intelligence on various societies and cultures.
- One of its activities focused on how **artificial intelligence robots respond vocally** to an individual He asks for advice on what snack to eat after exercise
- Ms. Mogos is also created a card game called "**I Love Algorithms**" that shows the implications of machine learning algorithms

***Algorithm**: A step-by-step procedure used to solve problems or perform operations Arithmetic

In the card game the player chooses one **Algorithms** card and one **Dataset** card To create an **ICT tool**.

□ Egypt puts artificial intelligence Its core priorities are as follows:

← Year, ٢٠١٩ Established the National Intelligence Council Artificial Intelligence, which announced in 2021 the launch of an artificial intelligence platform

← Year, ٢٠٢٢ occupied Egypt Second place in Africa in terms of its readiness to apply artificial intelligence technology

← Year, ٢٠٢٣ So she was released Training programs on artificial intelligence, to be implemented in all secondary schools within three years The innovation centers at Minya and Qena universities launched another program for this in the same year.

← The AI job market in Egypt has been growing, with many new startups creating jobs.

□ Blockchain, a digital system of recording data on several computers simultaneously so that the data cannot be hacked

□ Voice-controlled virtual assistants:-

1- Siri... from Apple

2- Google Assistant

٣- Alexa from Amazon

Amazon **Alexa** was designed with power To conduct conversations just like

humans, and program them to learn Automatically in order to help the user.

The Alexa voice assistant service works **Alexa Voice Service (AVS)** .is in the cloud



Evaluation:

Complete: Miss Mogos designed activities centered around.....

جروب فريق أصدقاء الكمبيوتر المتخصص / Yasmin Shoaeb

Date			
Session			
Class			

Theme 3: Digital Citizenship
Lesson 2: USING ARTIFICIAL INTELLIGENCE

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – peer learning
<ul style="list-style-type: none"> - Identify artificial intelligence (AI) tools - Describe different ways artificial intelligence is used - Discuss the importance of ethics while using artificial intelligence 	Teaching aids:- Electronic whiteboard – textbook – presentation

Introduction / What does the phrase code of ethics mean to you? How might it apply to (technology, including artificial intelligence) AI



Lesson presentation

❑ artificial intelligence It is technology that enables us to use human traits to solve problems Use logic and decision making to perform tasks.

...It depends on artificial intelligence On **algorithms** to learn it To solve problems and use Logic and decision making

❑ Common AI tools

- ❖ Unlock the device using facial recognition ❖ Navigation apps to guide you to a destination
- ❖ Smart home devices such as smart thermostats to regulate the temperature
- ❖ Digital voice assistants that answer questions or requests
- ❖ Email filters that prevent dangerous email from reaching your inbox
- ❖ Social networking sites that provide suggestions for users to contact others
- ❖ Chat windows on websites that provide responses from “chatbots”
- ❖ Interactive educational programs tailored to suit abilities Unique for each user
- ❖ Language processing tools that provide information and even... Helps you formulate your writing or answers to a command Starting from simple texts and emails Email, even coding, articles, etc



❑ ethics in the use of artificial intelligence Comprehensive

Be inclusive: AI tools should be inclusive to all users, not just a select group

Be unbiased: Data should be based on fact, not opinion or personal views

Be beneficial: AI tools should be used to help society, not used to take advantage of it

Be transparent: Be willing to explain how the AI tools work

Be protective: User privacy and security must be considered when designing AI tools

Be accountable: If an AI tool doesn't work as it should, admit the mistake, provide insight on what went wrong and explain what is being done to fix it

❑ Some people do not trust AI and are reluctant to use it, **but follow the ethics mentioned above** It can help alleviate their fears. AI users must also be They are ethical and use these tools to help themselves, others and society. Nor should they use it To violate people's privacy, defraud, or cause harm

❑ Although important Language processing tools are invaluable sources of information, however, there are concerns about their potential Using it to steal (**copy**) some works, mislead, and impersonate personalities, from celebrities to anyone family members!

❑ It's up to you to protect yourself online even if AI tools protect your data. He should

You need to make sure that the company or designer who produced the AI tool you want to use follows the rules Moral



Evaluation:

Complete: From the ethics of using artificial intelligence.....,

Date			
Session			
Class			

Theme 3: Digital Citizenship

Lesson 3: E - Commerce

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Cooperative learning – dialogue and discussion – brainstorming
<ul style="list-style-type: none"> - Explain what e-commerce is - Discuss the basic features of stocks and bonds. - Explain how to use technological research tools to make purchasing decisions. 	Teaching aids:-
	Electronic whiteboard – textbook – presentation

Introduction / What are the things that consumers should consider before making a purchase online?



E-commerce :- refers to the process of buying and selling goods and services over the Internet. There are many online shops. It can be a bit overwhelming for some consumers as there is so much choice. Experienced consumers use technological research tools to help them make the best purchasing decisions.

Technological research tools that can be used when shopping online:

- **search engines**:-

Search engines can be used to find information on any topic. Including information about products websites. And the engines are Very important technological research tools Due to the articles it contains About products and links to appropriate shopping sites, especially since they help Consumers to make their own decisions



- **COMPARISON WEBSITES**

Consumers use comparison websites to help them compare products. Comparisons could be based on price, or quality of the product.

- **Online Reviews**:

reviews can be done online, or even friends And family members via social networking sites can also be valuable. Most websites share consumer reviews of products, and with Therefore, consumers must be careful, as some reviews are fake or... exaggerated

Stock exchange:- Market maybe For individuals from During it Buying shares And sell it Which mostly These are referred to as arrows

Shares:- Equal parts into which the ownership of the company is divided

When individuals purchase these shares, they receive... A certain percentage of ownership ... in a company, so their financial profits or losses are based on the activity and performance of this company.

This process has many risks, as companies may lose their money and business due to ... competition or valuations, as well Negative posts (including rumors and lies) online can affect a company's business.

. Companies can sell bonds as a way to raise money ...

. Individuals may choose to buy stocks as a way to support companies they trust...

Stocks and bonds can be bought, managed and sold easily through reliable official websites People have ... more power in managing their financial decisions



Evaluation:

Put ✓ or ✗:- Companies can sell bonds as a way to raise money ()



Date			
Session			
Class			

Theme 3: Digital Citizenship
Lesson 4: Educational Service Providers

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Critical thinking – direct dialogue – cooperative learning
<ul style="list-style-type: none"> - Explain what educational service providers are - Discuss how to properly communicate with educational service providers - Communicate with an educational service provider 	Teaching aids:- Electronic whiteboard – textbook – presentation

Introduction / Why are good communication skills so important when requesting information?



❖ **Educational service providers "ESP": Sources of information for students Learn from it**

❖ - It includes

- Profit organizations
- Non-profit organizations

❖ **Educational service providers include:**

- Online libraries

- Educational publishing sites

- Virtual museums

- It is worth pointing out that the Library of Alexandria and the Egyptian Knowledge Bank are reputable providers of educational services in this field.

- You can contact educational service providers whenever you need help with research or any other needs. Other educational. -:For example....

.Your letter must be official

- Sometimes, you may get an automated response thanking you for contacting them, and letting you know that you will receive a response soon.

You can communicate with educational service providers

through chat windows. In these

windows, you can speak in a less formal manner, but with respect

politeness, and clarity. Chat windows often employ chatbots to respond to requests. Do not forget that

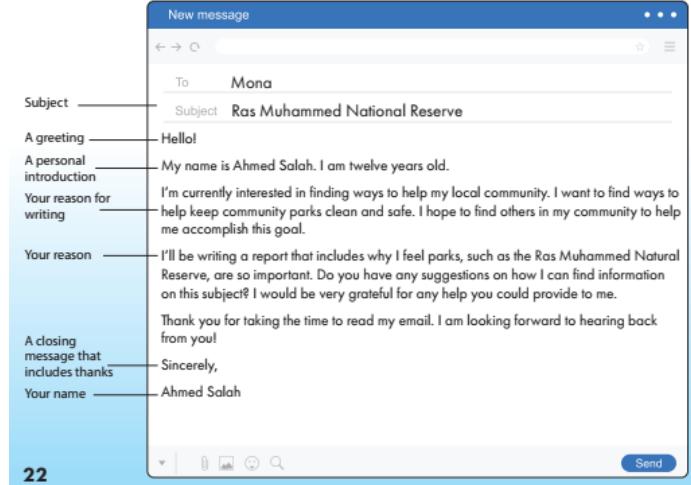
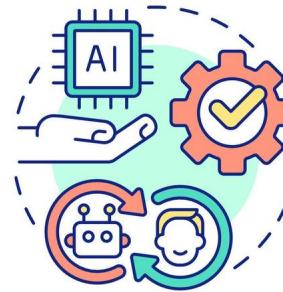
these robots are not real individuals, but

computer programs that operate with artificial intelligence and are designed to answer questions online.

When using chat windows, it is necessary to express your request as clearly as possible. And focus, otherwise you won't get an accurate or relevant response

Evaluation:

Complete:-Sources of information that students can Learn from him



22

Date			
Session			
Class			

Theme 3: Digital Citizenship
Lesson 5: Communication Tools

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Dialogue and discussion – cooperative learning – practical training
<ul style="list-style-type: none"> - Explain the value of real-time communication. - Discuss the tools available in a video conference - Make a presentation via a video conference 	Teaching aids:- Electronic whiteboard – textbook – presentation

Introduction / What are the pros and cons of communicating with others in real-time?



Lesson presentation

You learned about cloud computing and used some of its tools in the first semester.

Cloud computing tools for real-time communication :-

There are other tools of cloud computing that you can use to communicate with everyone at the same time. This can be done by using digital tools such as video chats, live television shows, and instant chat rooms

... The most famous video conferencing platforms :- They are two platforms Microsoft Teams and Google Meet Despite the slight differences in the functionality of each platform, the basic tools they offer The two platforms are similar

How to use video conferencing software via the Google Meet platform.

← **To create a meeting:** Click on the “New Meeting” option then click on the option Suitable for you – .

Option to start a meeting right away or create a meeting for later.

Once you create the meeting, copy the meeting link provided by Google, and share it with the meeting participants.

← **To join a meeting:** There are two ways to join the meeting, you can either copy and paste the meeting link in Your browsing, or entry Click on the link in the “Enter a code or link” field, then click on the “Join” button. Once you join the meeting, you'll be asked to agree to allow the use of your microphone and camera. Click On the microphone icon to play audio and on the camera icon to play video. To stop either of them, all you have to do is: Simply click on the relevant symbol again.

← **Before communicating via video conference:** Remember to check your Internet connection and software. Fix any malfunction.

← **During the video conference:** Remember that participants can see you unless you turn off the camera.

So, bounce back Wear appropriate clothing, maintain a refined demeanor, and always smile. Verify that the microphone is working Speak and mute the volume when not in use. Review your notes when necessary, but be sure to look directly To the camera while speaking.

← **After the video conference ends:** Send a follow-up email after the meeting, including a summary of the meeting First, a link to the recording of the meeting, if it has been recorded

Evaluation:

Complete:- It is preferable when searching in any database, use the search with.....



Date			
Session			
Class			

Theme 3: Digital Citizenship
Lesson 6: Programming and digital problems
and how to solve them

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Dialogue and discussion - cooperative learning - mind maps
<ul style="list-style-type: none"> - Explain the value of real-time communication. - Discuss the tools available in a video conference - Make a presentation via a video conference 	Teaching aids:- Electronic whiteboard - textbook - presentation

Introduction / How can learning and troubleshooting programming problems help to build your confidence?



Programming languages:- Commands given in the form of sentences to write computer programs

← **Static web content**: is the content that is placed and remains the same for everyone A user visits the website ...and uses **HTML**. To design it



← **Dynamic web content**: is the content that maybe Change it building on User interactions With the application or website and uses **Java Script**. To design it

Common digital problems :-

problem	Possible solutions
Corrupted file	<ul style="list-style-type: none"> • Check that the file downloaded correctly. If you're not sure, delete the .corrupted file and download it again • Try opening the file using another program • Make sure your software version is up-to-date. If it isn't, run the necessary updates
Device won't charge	<ul style="list-style-type: none"> • Make sure your charging cable is functioning. If it isn't, replace it with a new .cable • Be sure there are no issues with your electricity or socket at home • Check for dust and water in the charging port. Clean the port or remove the water by following the instructions from your device's provider (you can .ask your teacher for help)
Forgotten password	<ul style="list-style-type: none"> • Click on the link that confirms you forgot your password. Follow the .steps to create a new password • In the future, use a password manager application. Set up strong unique passwords for each account and remember the master password for the .password manager
Accidental file deletion	<ul style="list-style-type: none"> • Make sure you can see the "Recycle Bin" or "Trash" feature on your .computer, which temporarily stores deleted files • Regularly back up important files to an external hard drive, or cloud storage .service
Error message when trying to save a file	<ul style="list-style-type: none"> • Make sure you're not using the name of another file • Check that you have the right to access the file storage location, such .as a local hard drive or cloud storage • Check to see if your password includes "special characters", which can .prevent the file from saving properly

Evaluation:

Complete:- Commands given in the form of sentences for writing computer programs



Date				
Session				
Class				

Theme 3: Digital Citizenship
Lesson 7: Use image editing tools

Lesson objectives:-	Strategies :-
By the end of the lesson the student should be able to:	Dialogue and discussion – cooperative learning – mind maps
<ul style="list-style-type: none"> - Explain what image manipulation is and what it is used for - Identify some uses of photo editing tools - Discuss the advantages of using photo editing tools to show ideas. 	Teaching aids:-
	Electronic whiteboard – textbook – presentation

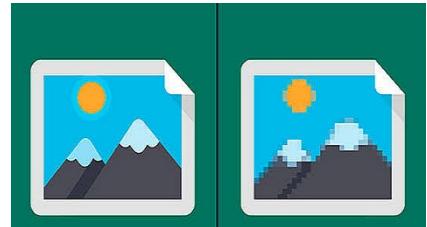
Introduction / Do you ever edit the photos before you post them?



Image processing program "Gimp" It allows you to use tools similar to Photoshop for free, as it is an open source program that you can use on different operating systems to change images as you wish. for you

Retouching

This enhances the photo to make it look more beautiful. You can correct flaws in the photo. For example, if someone has red eyes from camera glare you can change them to the original color, you can make their skin look smoother, or you can change the color of their jacket to make it brighter and more noticeable. You can change the background too. If the photo was taken on a cloudy day, you can make the sky seem brighter



Blending

This combines two images to make them look like one. This is useful when you present an idea for something that doesn't exist yet or show what something might look like

Special effects

You can use different filters to add special effects to an image. For example, you can make it look like something is moving in the photo with motion blur, or make it look very old with the artistic filter gallery

....**GIMP**:- It is an effective and lightweight program, as it does not take up a lot of space on the hard drive. and he It is a frequently used program, so there are online resources that help you learn how to use it. in spite of It provides many tools, but you can customize your interface so that only the tools that You need it.

....**GIMP**:- It supports various types of files, and you can... Converting the image to another type, such as **PDF** or **jpeg**

Evaluation:

Complete:- Gimp is ansource.



Date			
Session			
Class			

Theme 3: Digital Citizenship General Review

Lesson objectives:-	Strategies :-
<p>By the end of the lesson the student should be able to:</p> <ul style="list-style-type: none"> - Knows some important terms related to the axis - Comparing Between programming languages - Innovates An idea to create an application for a mobile device that displays the historical sites of Egypt 	<p>Dialogue and discussion – cooperative learning – mind maps</p> <p>Teaching aids:-</p> <p>Electronic whiteboard – textbook – presentation</p>

Introduction / How can we use ICT tools to help with the latest technological developments?



1 Write and compare

Write a sentence for each set of words to explain the connection between them. Then compare your sentences with a partner

1. inclusive and AI tools
2. e-commerce and electronic trading
3. video conference and real-time communication

2 Read and answer

1. What did the State launch in ٢٠١٩ to help Egypt prepare for the emergence of Artificial Intelligence?
2. Name three ethics that should be practiced by AI designers
3. Give one example of a research tool you can use when shopping online
4. Provide an example of an educational service provider
5. What type of communication is video conferencing an example of?
6. What is HTML?
7. Name a program you can use to edit photos

Evaluation:

Evaluating students' answers

